MPA
MANAGEMENT CAPACITY
TRAINING

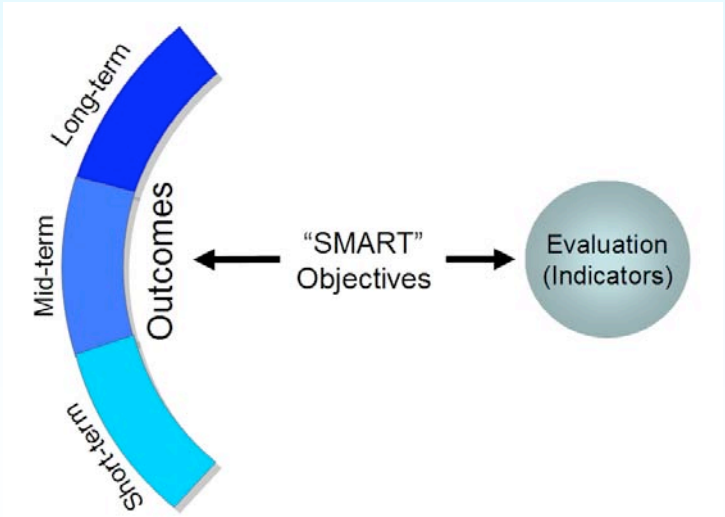
MPA Management Capacity Building Training

Module 6:

MANAGEMENT PLANNING, PART 3

MPA
MANAGEMENT CAPACITY
TRAINING

GOALS, OUTCOMES, OBJECTIVES, AND PERFORMANCE MEASURES



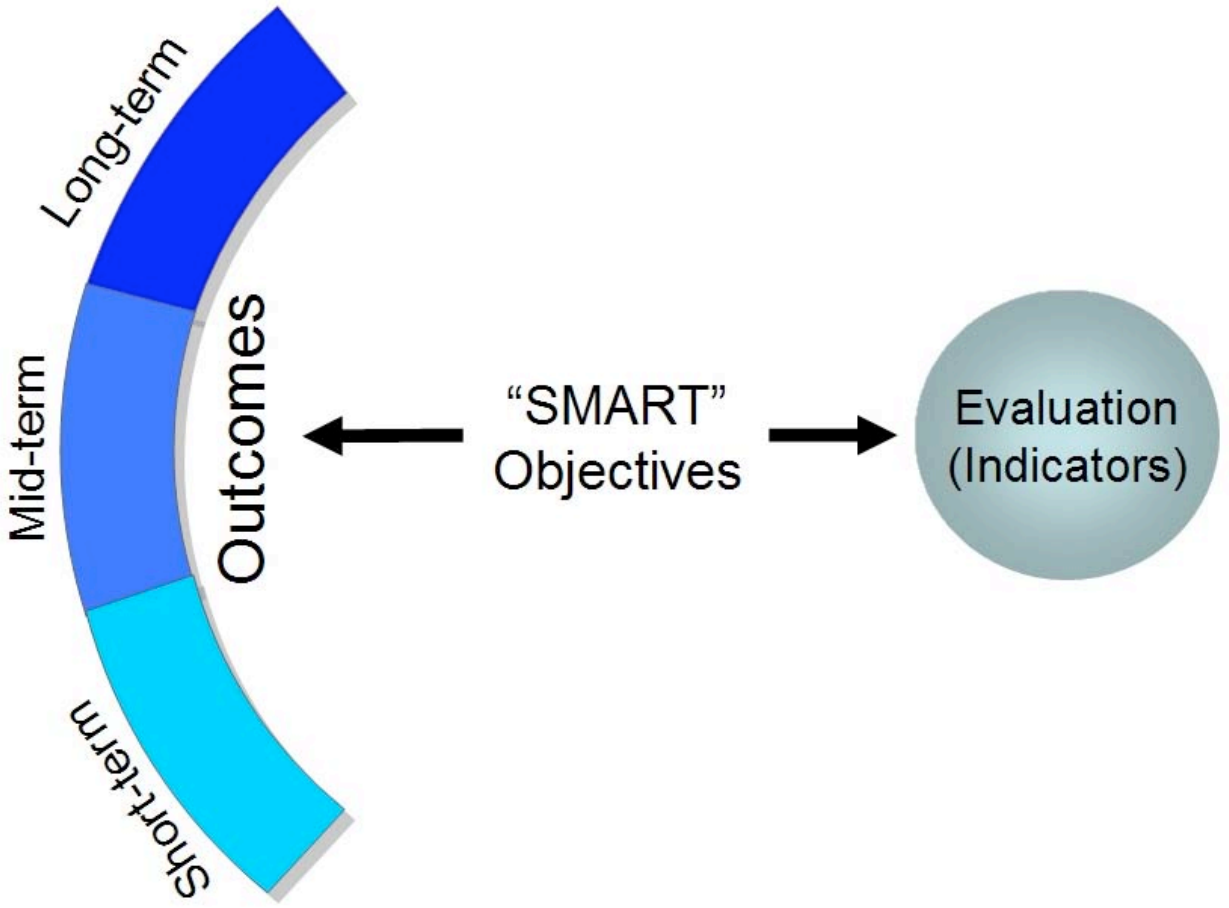
MPA
MANAGEMENT CAPACITY
TRAINING

Are You Being Effective?

- Are you making progress on your goals?
- Are your (short, mid, and long term outcomes being achieved?
- Are your outcomes written as smart objectives (measurable)?
- Are you monitoring your progress?

MPA
MANAGEMENT CAPACITY
TRAINING

Program Evaluation

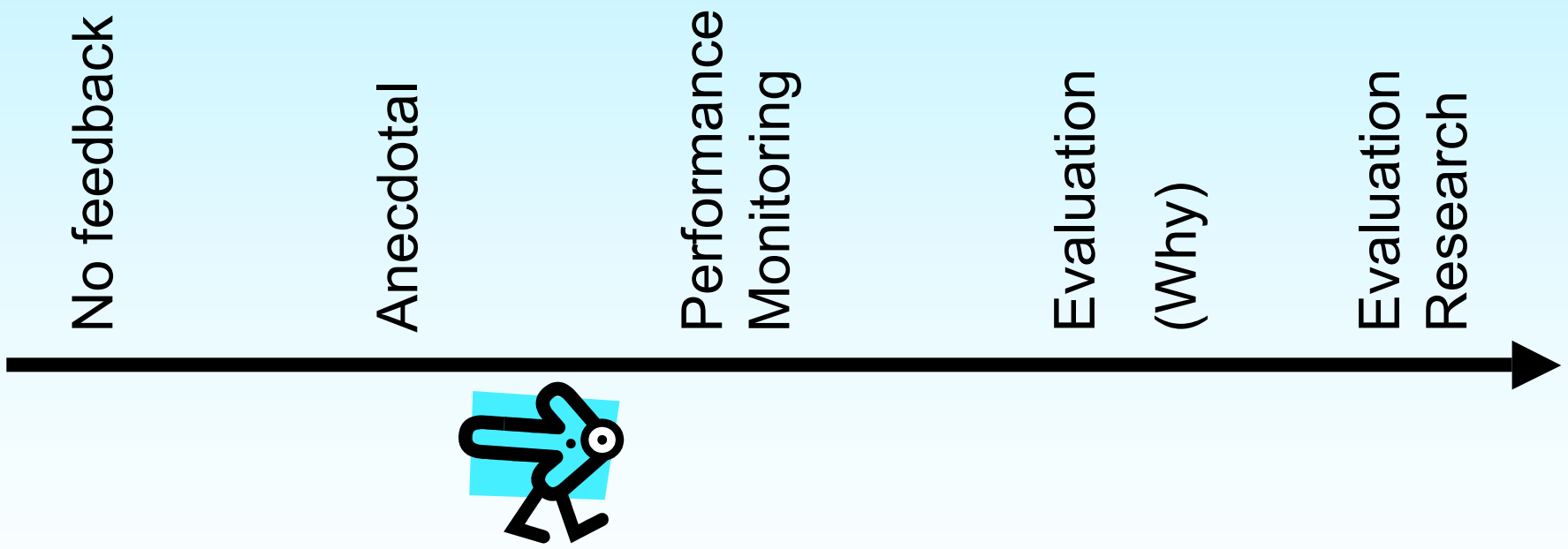


MPA
MANAGEMENT CAPACITY
TRAINING

Why Evaluate Effectiveness?

- Promoting adaptive management
  - Audience: Management staff
- Improving project planning
  - Audience: Other programs staff
- Promoting accountability
  - Audience: Agencies, organizations, stakeholders

Evaluation Continuum



MPA
MANAGEMENT CAPACITY
TRAINING

Monitoring

- Gathers data consistently
- Shows trends
- Tells us what but not why
- Indicates there may be a need for further study if changes are occurring

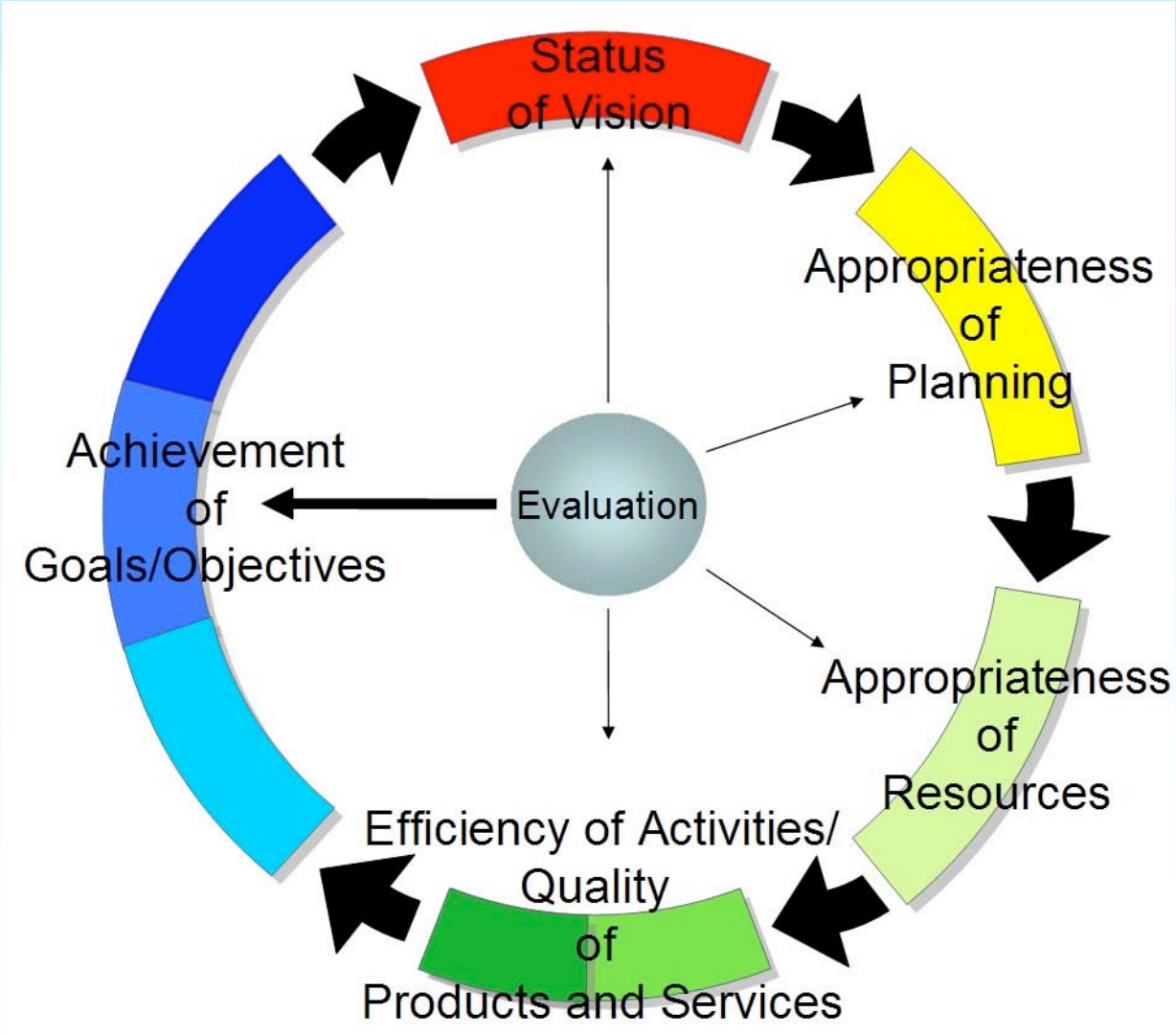
MPA
MANAGEMENT CAPACITY
TRAINING

What Can Be Evaluated to Determine if an MPA is Effective?

- Design and context of the site/system
- Appropriateness of management systems and processes (activities)
- Achievement of objectives and goals

MPA
MANAGEMENT CAPACITY
TRAINING

What Can Be Evaluated?



(Adapted from Hockings et al., 2000)

MPA
MANAGEMENT CAPACITY
TRAINING

Objectives

- Objectives should describe the intended **impacts**, or results of the program on participants and/or the issue
- Objectives are a specific measurable statement of what must be accomplished to achieve goal
- Defined within a time period and achievable

MPA
MANAGEMENT CAPACITY
TRAINING

SMART Objectives

- Specific
- Measurable
- Audience or issue focused
- Reasonable
- Timely

MPA
MANAGEMENT CAPACITY
TRAINING

Writing Objectives

Ugly:

Teach seabird identification

Bad:

They can identify seabirds

Good:

After the program, participants will be able to correctly identify (by common name) at least four species of seabird in the field

- C. Parsons

MPA
MANAGEMENT CAPACITY
TRAINING

Writing Objectives

Ugly:

Restore wetlands

Bad:

Wetlands are restored

Good:

Within five years, 80 percent of the saltwater marsh in the local MPA will be restored to its 1970s condition

MPA
MANAGEMENT CAPACITY
TRAINING

Planning Process to Effectiveness Indicators

- Planning elements provide an easy starting point for the selection of meaningful and realistic indicators to monitor effectiveness
- You must understand the overall program in order to identify what needs to be measured
- Individual programs can contribute to the larger scale goals

Planning Process outcomes → Objectives → Indicators

MPA
MANAGEMENT CAPACITY
TRAINING

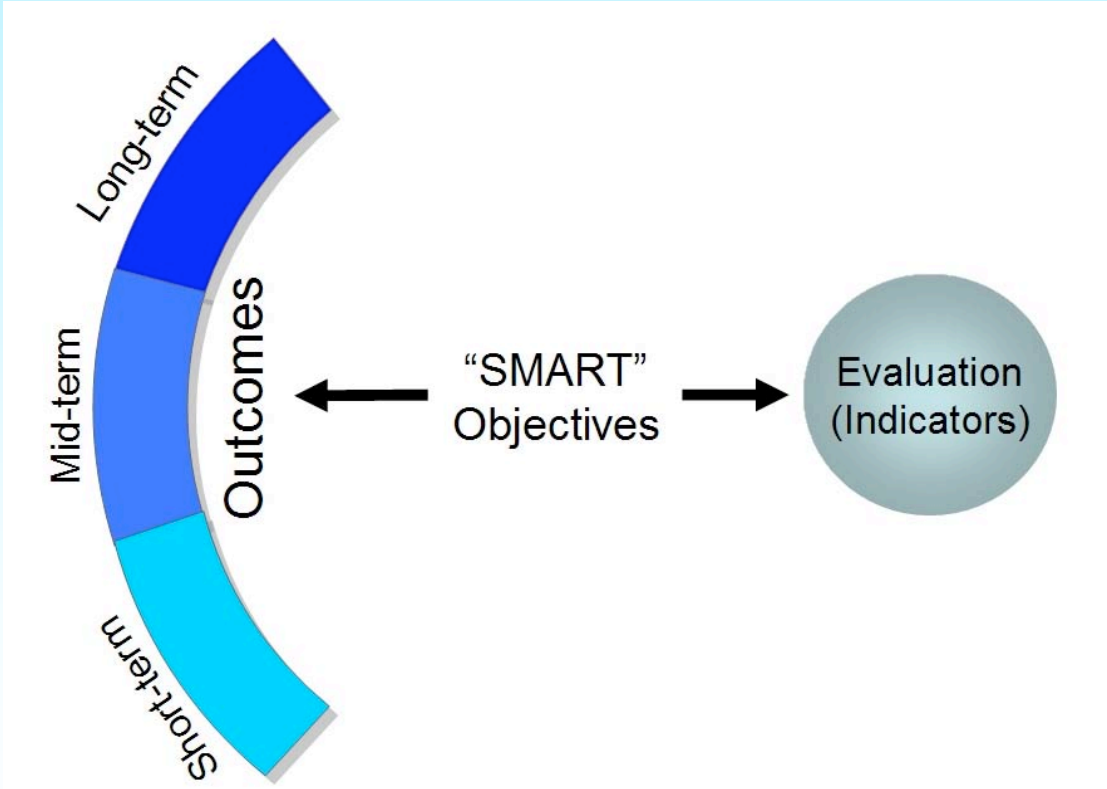
Activity

Writing SMART Objectives

- Specific
- Measurable
- Audience or issue focused
- Reasonable
- Timely

MPA
MANAGEMENT CAPACITY
TRAINING

The Evaluation Process



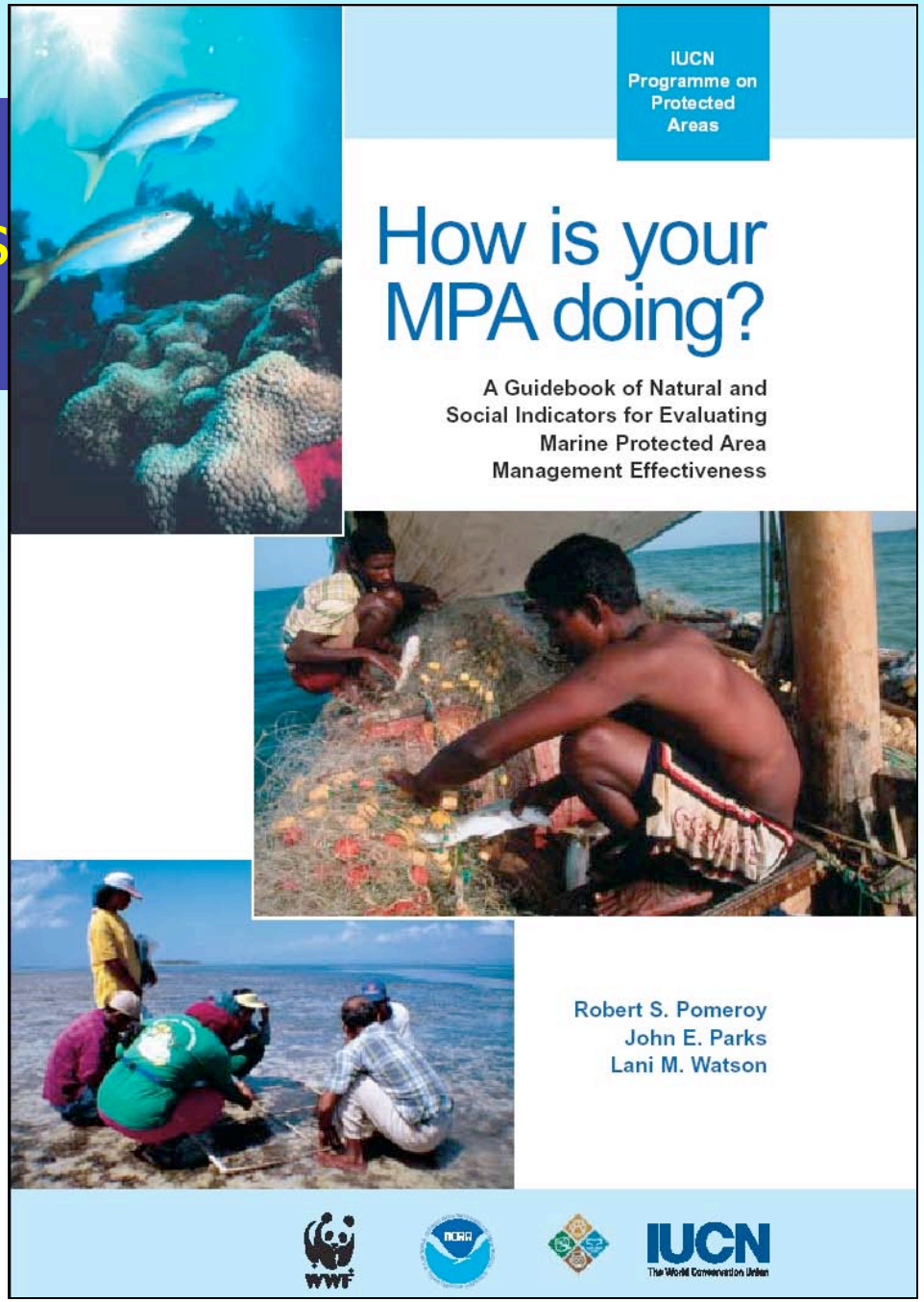
Marine Protected Area Management Effectiveness Initiative

- World Wildlife Fund (WWF)

- National Oceanic and Atmospheric Administration (NOAA)

- World Commission on Protected Areas (WCPA-Marine)

- World Conservation Union (IUCN)



MPA
MANAGEMENT CAPACITY
TRAINING

Developing the Guide Book

Purpose

To help managers evaluate effectiveness for the purposes of adaptive management

Audiences

- Managers
- Fishermen
- Local residents
- Decision makers
- Nongovernmental organizations
- Educators and researchers

MPA
MANAGEMENT CAPACITY
TRAINING

Guidebook Indicators

Biophysical (n=10)

Socioeconomic (n=16)

Governance (n=16)

MPA
MANAGEMENT CAPACITY
TRAINING

Generic Indicator Outline

(example: B3, page 67)

- Name
- Definition
- Goals/objectives
- Difficultly rating
- Why measure it?
- Requirements
- How to collect
- How to analyze/interpret
- Outputs
- Strengths and limitations
- Example
- Useful references

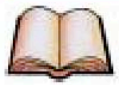
BIOPHYSICAL INDICATOR 1

Focal species abundance

What is 'focal species abundance'?

Species **abundance** is the number of individuals of a particular species found to occur within and outside the MPA. Species abundance is a commonly used proxy for population size and is thought to reflect the status of a species' population within a specific location; for example, whether or not the population is growing over time. The density of a species is determined by examining the abundance within a defined (unit) area. Species abundance is one of the most widely used biological 'success' measures of management effectiveness.

A **focal species** is an organism of ecological and/or human value whose management through the MPA is of priority interest. There are several different types of focal species th be identified for a particular M With many MPAs, their goals a directly to the need to protect c



Focal species abundance can also be defined as how commonly a particular species is found relative to other species within the same community, i.e. B4.

Why measure it?

The protection, enhancement a of populations of focal species a common reasons for using MI sustained numbers of focal sp through time is widely seen t MPA use. As a result, monitor abundance of populations of foc the most common activities managers. Fortunately, the bas compare the number of individu observed within versus outs relatively uncomplicated and ea

As populations of focal species MPA are protected and allowed may migrate, or 'spill over', i protected areas. This increases

Box B1

TYPES OF 'FOCAL' SPECIES

(adapted from Noss, 1990)

- Endemics – species that are only found to occur naturally in the waters near the MPA.
- Exotics – non-native species that are of concern due to their negative effects on the local ecology. For example, introduced algae that aggressively spreads and
- Targets – species of interest due to t non-extractive use value. For examp commonly harvested for local diet n whales that bring tourists to the area species will be priorities for manage therefore not all be focal species

How to collect the data

Before data collection can begin, the evaluation team will need a list of which focal species in and

Requirements

- A list of the focal species (reviewed and approved by stakeholders).
- Designated sampling sites inside and outside the MPA.
- An adequate number of trained staff and/or volunteers in both survey methods and taxonomic identification.
- A boat (with safety equipment) and engine.
- Survey tools (e.g. tape measure, compass, towline, submersible writing slate).
- SCUBA or snorkelling equipment.
- A handheld global positioning system (GPS).
- Submersible digital camera (to verify species identifications).
- Advanced (if applicable): aerial photography, satellite imagery, and geographic information systems; small airplane or helicopter (for large, wide ranging organisms); tagging and telemetry equipment; and digital video camera and underwater housing.

Relates to goals and objectives

GOAL 1
1A 1C 1D 1E 1F

GOAL 2
2C 2G

GOAL 3
3A 3D

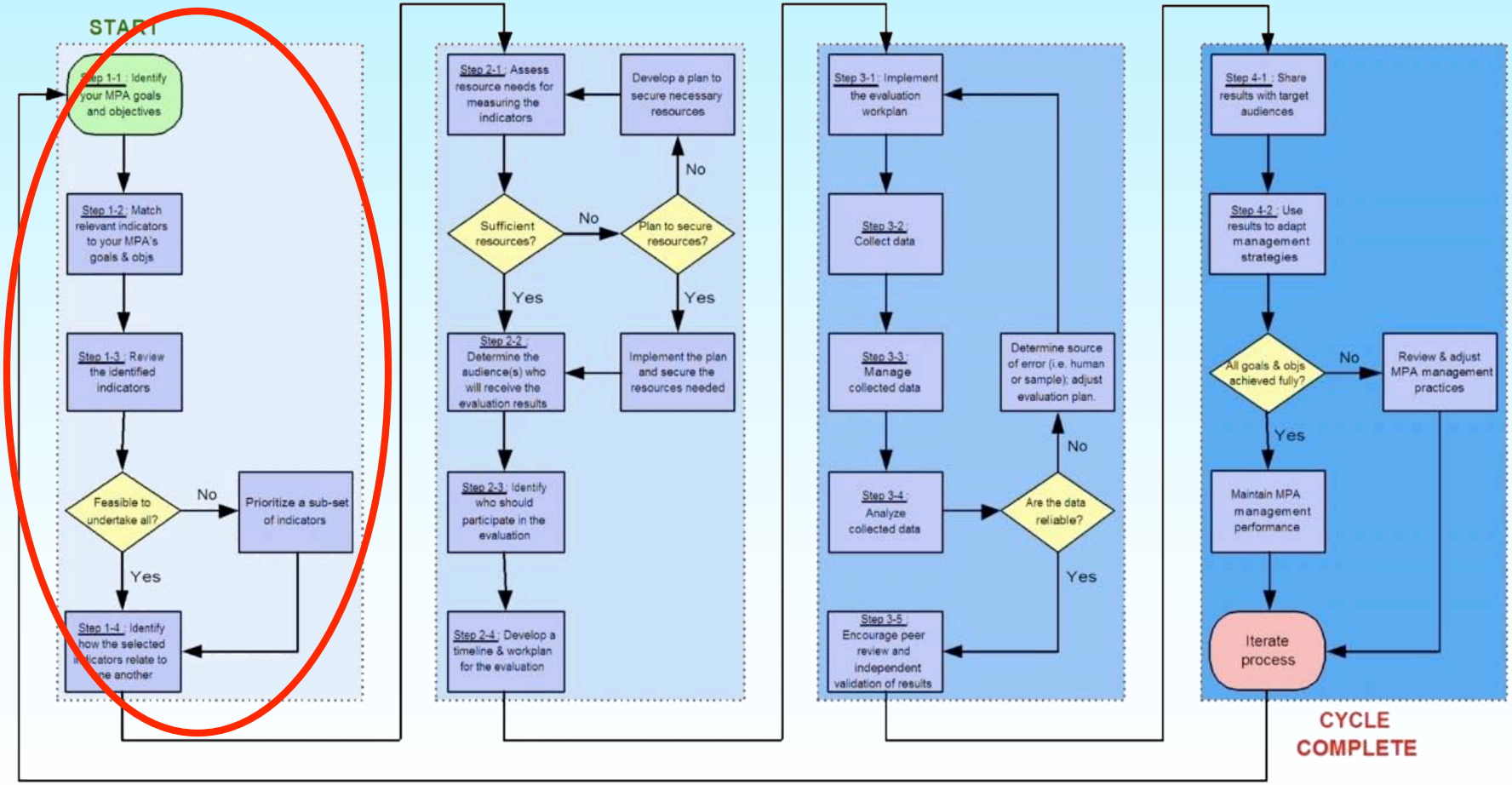
GOAL 4
4D

GOAL 5
5A 5B 5D 5E

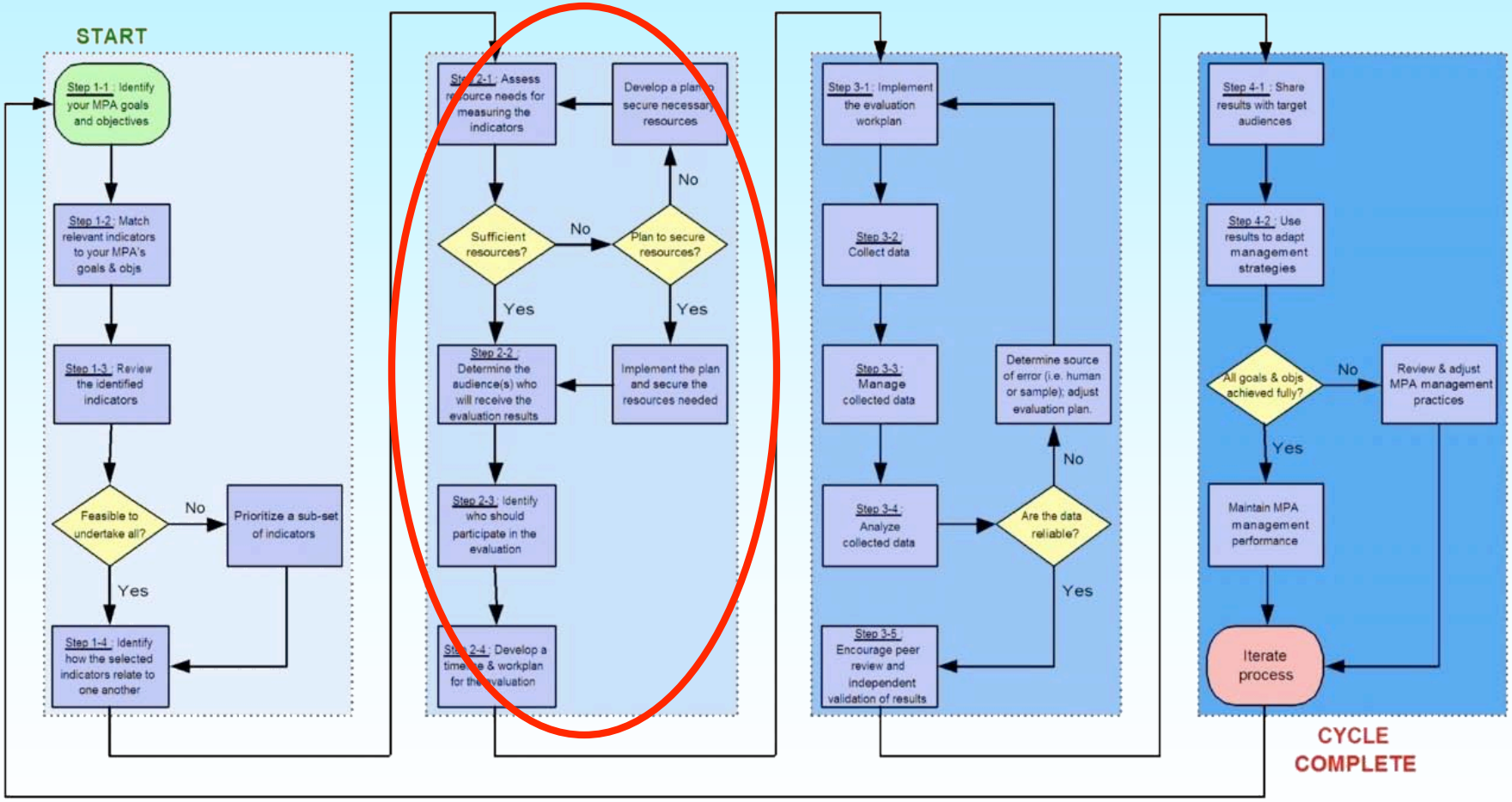
Difficulty Rating 3 1–5

Step 1: Selecting Your Indicators

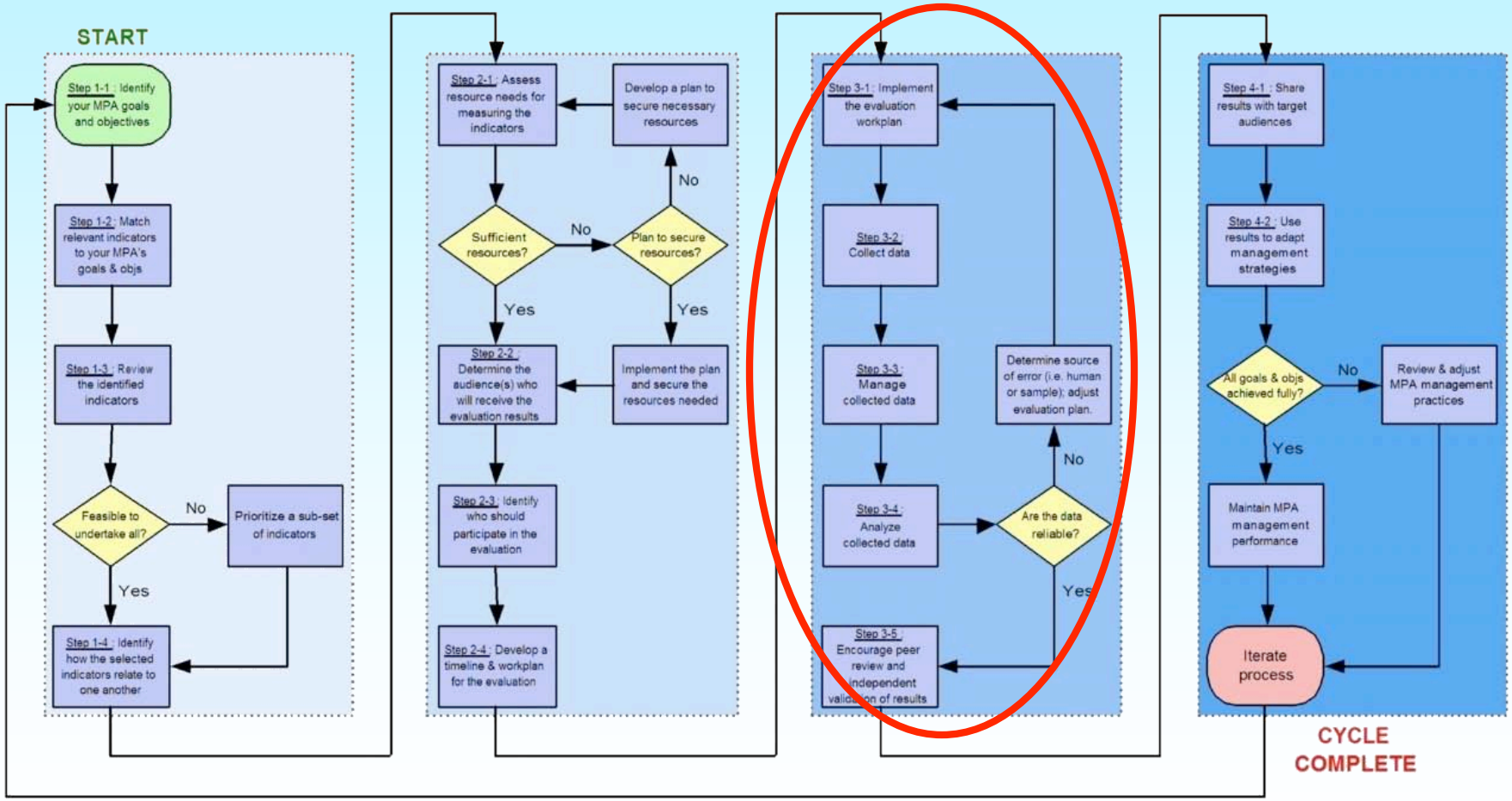
(pages 8 and 9)



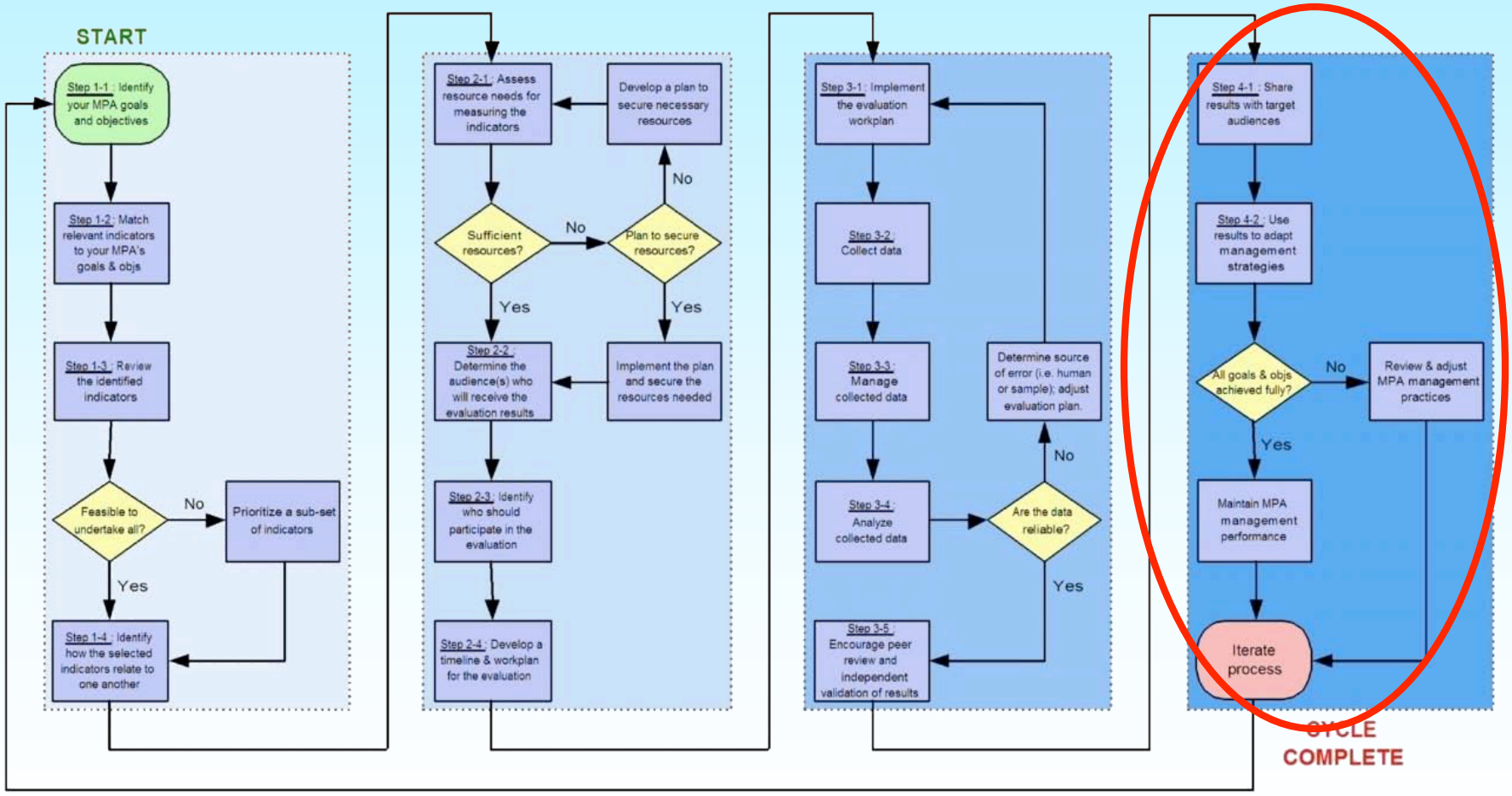
Step 2: Planning Your Evaluation



Step 3: Implementing the Plan



Step 4: Sharing the Results



MPA
MANAGEMENT CAPACITY
TRAINING

Selecting Indicators

- Identify relevant goals and objectives in the handbook
- List all possible indicators
- Review and prioritize the indicators identified

MPA
MANAGEMENT CAPACITY
TRAINING

Planning your Evaluation

- Asses resource needs for measuring your indicators
- Determine the audience who will receive the evaluation results
- Identify who should participate in the evaluation
- Develop timeline and workplan for the evaluation

How the biophysical indicators relate to the common goals and objectives

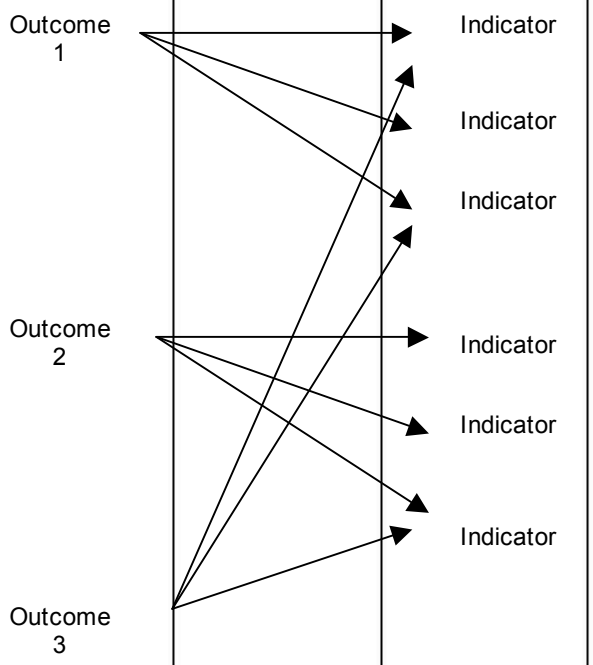
		B1 Focal species abundance	B2 Focal species population structure	B3 Habitat distribution and complexity	B4 Composition and structure of the community	B5 Recruitment success within the community	B6 Food web integrity	B7 Type, level and return on fishing effort	B8 Water quality	B9 Area showing signs of recovery	B10 Area under no or reduced human impact
GOAL 1	**Marine resources sustained or protected**										
1A	*Populations of target species for extractive or non-extractive use restored to or maintained at desired reference points*	●	●				●	●			
1B	*Losses to biodiversity and ecosystem functioning and structure prevented*			●	●	●			●		
1C	*Populations of target species for extractive or non-extractive use protected from harvest at sites and/or life history stages where they become vulnerable*	●	●		●		●	●		●	●
1D	*Over-exploitation of living and/or non-living marine resources minimized, prevented or prohibited entirely*	●	●		●		●	●			●
1E	*Catch yields improved or sustained in fishing areas adjacent to the MPA*	●				●		●		●	●
1F	*Replenishment rate of fishery stocks increased or sustained within the MPA*	●	●					●		●	
GOAL 2	**Biological diversity protected**										
2A	*Resident ecosystems, communities, habitats, species, and gene pools adequately represented and protected*				●	●		●		●	●
2B	*Ecosystem functions maintained*						●		●	●	
2C	*Rare, localized or endemic species protected*	●	●		●						
2D	*Areas protected that are essential for life history phases of species*		●	●				●	●		●
2E	*Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*				●				●		●
2F	*Risk from unmanageable disturbances adequately spread across the MPA*										
2G	*Alien and invasive species and genotypes removed or prevented from becoming established*	●			●						
GOAL 3	**Individual species protected**										
3A	*Focal species abundance increased or maintained*	●	●	●			●	●		●	
3B	*Habitat and ecosystem functions required for focal species' survival restored or maintained*			●	●		●	●	●	●	
3C	*Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*							●	●		●
3D	*Alien and invasive species and genotypes removed from area or prevented from becoming established*	●	●		●						
GOAL 4	**Habitat protected**										
4A	*Habitat quality and/or quantity restored or maintained*			●	●	●			●	●	
4B	*Ecological processes essential to habitat existence protected*			●	●	●			●	●	
4C	*Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*			●	●	●			●		●
4D	*Alien and invasive species and genotypes removed or prevented from becoming established*	●		●	●				●		
GOAL 5	**Degraded areas restored**										
5A	*Populations of native species restored to desired reference points*	●					●	●		●	
5B	*Ecosystem functions restored*	●	●		●				●	●	
5C	*Habitat quality and/or quantity restored or rehabilitated*		●	●	●				●	●	
5D	*Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA*	●			●				●	●	●
5E	*Alien and invasive species and genotypes removed or prevented from becoming established*	●		●	●					●	

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Project/Program Logic Model

Project Title: _____

Resources What is needed.	Activities What YOU will do.	Outputs What YOU will produce.	Outcomes Short-Term / Mid-Term / Long-Term How will the AUDIENCE and the ISSUE change because of what you do and produce?	Objectives (SMART)	Guidebook Indicators



MPA
MANAGEMENT CAPACITY
TRAINING

Activity

- Are you already measuring your indicators?
- What is your current capacity to measure indicators on your list?
- Can you customize this indicator to better suit your MPA?
- How useful will it be to have the monitoring information?

MPA
MANAGEMENT CAPACITY
TRAINING

Management Plan

- Assessment Phase
- Strategic Planning Phase
- Writing and Using the Plan

MPA
MANAGEMENT CAPACITY
TRAINING

Next Steps

- What have you learned that you can apply to your MPA?
- What more do you need to do to complete an effective management plan?
- Do you know where to go to find additional information?